



Use Case: Operations to Planning

Summary:

EMS' model data and configuration is sent in CIM/XML format to planning users, either when the EMS is updated or when a planning user requests a specific saved case.

Actors(s):

<u>Name</u>	<u>Acronym</u>	<u>Role description</u>
Operation User	OpUser	Updates EMS. Sends a saved case to planning user.
Planning User	PngUser	Requests a saved case.

Participating System(s):

<u>System</u>	<u>Acronym</u>	<u>Services/Information provided</u>
CIM Data Repository	Repository	Contains generator, reactive equipment, load, dynamic, topological, line and transformer data.
Energy Management System	EMS	Contains the static model and real time system readings.
PSLF or PSS/E	PFSolver	Solves power flow.
Supervisory Control and Data Acquisition	SCADA	Retrieves operations data.

Pre-conditions:

- EMS is capable of exporting files in CIM/XML format.
- The Repository is capable of importing CIM/XML files generated by EMS.

Triggers:

- OpUser updates EMS' model data and configuration.
- OpUser wants PngUser to solve a specific case.
- PngUser makes a request to OpUser for a saved case to be sent from EMS.

Normal Sequence:

<u>Step</u>	<u>Description</u>	<u>From – To</u>	<u>Information Exchanged</u>
1	OpUser enters EMS' model data and configuration. Operations data is retrieved from SCADA and added to EMS. EMS is updated.	OpUser – EMS	Updated EMS model data and configuration.
2	OpUser initiates a request to send data from EMS to the Repository.	OpUser – EMS	A request
3a	The EMS snapshot is sent as a full CIM/XML model to the Repository.	EMS – Repository	EMS snapshot in a CIM/XML file.
3b	The updates to EMS are sent as a CIM/XML incremental model to the Repository.	EMS – Repository	EMS updates in a CIM/XML incremental file.
4	The data is exported from the Repository to a PFSolver for the PngUser to use.	Repository – PFSolver	Solved case.

Post-conditions:

- The Repository has been updated with current data or a specific case from EMS.

Issues:

<u>ID</u>	<u>Description</u>	<u>Status</u>
1		



Revision History:			
<u>No</u>	<u>Date</u>	<u>Author</u>	<u>Description</u>
<u>1</u>	<u>2006-12-01</u>	<u>J. Ho</u>	<u>High-level draft.</u>
<u>2</u>	<u>2006-12-04</u>	<u>J. Ho</u>	<u>Normal sequence. Attached diagram.</u>

Actors

Consumers

